

## **Regional HIV/AIDS Epidemiologic Profile of Boston Health Service Region (HSR), Massachusetts: 2015**

### **Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data**

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Disease, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2015, this resulted in the removal of 4,401 HIV/AIDS cases, of which 1,021 have died and 3,380 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual risk category for men; those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual risk category was used with the intention of identifying HIV risk for women when sex with men is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. The application of the presumed heterosexual risk category to men is overly inclusive in that woman to man HIV transmission is biologically less probable, and there are alternate risks that are possible for men, including sex with other men (MSM) or IDU. The CDC reports men diagnosed with HIV/AIDS who report sex with women as their only risk factor, without corresponding partner risk or HIV status information, in the NIR category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for men in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual risk categories for women.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2014: Boston HSR, Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	6,236	58%
People Reported with HIV or AIDS who are Deceased	4,541	42%
<b>Total Number of People Reported with HIV Infection or AIDS</b>	<b>10,777</b>	<b>100%</b>

<sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 2. Average annual rate of HIV infection diagnosis from 2011 to 2013 and HIV/AIDS prevalence rate on 12/31/14<sup>1</sup>: Boston HSR, Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2011–2013</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
Boston HSR, MA	27.0	211.0
Massachusetts Total	10.7	701.3

  

<b>HIV/AIDS prevalence rate on 12/31/14</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
Boston HSR, MA	798.7	6,236
Massachusetts Total	301.5	19,737

<sup>1</sup> The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

<sup>2</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2004–2013, Boston HSR, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2004	4,712	91	269
2005	4,913	88	289
2006	5,071	89	247
2007	5,211	78	218
2008	5,344	80	213
2009	5,474	72	202
2010	5,619	71	216
2011	5,776	63	220
2012	5,908	67	199
2013	6,079	46	214

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 4. People diagnosed with HIV infection from 2011–2013<sup>1</sup> and people living with HIV/AIDS on December 31, 2014 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Boston HSR, Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	503	79%	4,773	77%
Female	130	21%	1,463	23%
Place of Birth:	N	%	N	%
US	374	59%	4,122	66%
Puerto Rico/US Dependency <sup>3</sup>	30	5%	375	6%
Non-US	229	36%	1,739	28%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	198	31%	2,441	39%
Black (non-Hispanic)	221	35%	2,368	38%
Hispanic/Latino	184	29%	1,285	21%
Asian/Pacific Islander	18	3%	95	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	322	51%	3,017	48%
Injection Drug Use (IDU)	36	6%	762	12%
MSM/IDU	-- <sup>7</sup>	-- <sup>7</sup>	216	3%
Heterosexual Sex	54	9%	756	12%
Other	-- <sup>7</sup>	-- <sup>7</sup>	104	2%
Total Undetermined	199	31%	1,381	22%
• Presumed Heterosexual Sex <sup>4</sup>	68	11%	518	8%
• Undetermined <sup>5</sup>	131	21%	863	14%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2014	
Under 13	3	<1%	8	<1%
13 to 19	22	3%	26	<1%
20 to 24	77	12%	88	1%
25 to 29	87	14%	201	3%
30 to 34	87	14%	304	5%
35 to 39	68	11%	409	7%
40 to 44	85	13%	564	9%
45 to 49	78	12%	1,001	16%
50 to 54	55	9%	1,239	20%
55 to 59	37	6%	1,124	18%
60+	34	5%	1,272	20%
<b>Total<sup>6</sup></b>	<b>633</b>	<b>100%</b>	<b>6,236</b>	<b>100%</b>

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>2</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>3</sup> Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

<sup>4</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>5</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>6</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>7</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 5. People living with HIV/AIDS on December 31, 2014 by gender and race/ethnicity: Boston HSR, Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	2,260	47%	181	12%
Black (non-Hispanic)	1,423	30%	945	65%
Hispanic/Latino	976	20%	309	21%
Asian/Pacific Islander	78	2%	17	1%
<b>Total<sup>2</sup></b>	<b>4,773</b>	<b>100%</b>	<b>1,463</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 6. People living with HIV/AIDS on December 31, 2014 by gender and exposure mode: Boston HSR, Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	3,017	63%	N/A	N/A
Injection drug use (IDU)	492	10%	270	18%
MSM/IDU	216	5%	N/A	N/A
Heterosexual sex	242	5%	514	35%
Other	56	1%	48	3%
Total Undetermined	750	16%	631	43%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	518	35%
• Undetermined <sup>3</sup>	750	16%	113	8%
<b>Total</b>	<b>4,773</b>	<b>100%</b>	<b>1,463</b>	<b>100%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Boston HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2004	203	75%	66	25%	269
2005	224	78%	65	22%	289
2006	194	79%	53	21%	247
2007	176	81%	42	19%	218
2008	176	83%	37	17%	213
2009	161	80%	41	20%	202
2010	155	72%	61	28%	216
2011	168	76%	52	24%	220
2012	170	85%	29	15%	199
2013	165	77%	49	23%	214

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Boston HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total <sup>3</sup>
	N	%	N	%	N	%	N
2004	89	33%	120	45%	55	20%	269
2005	103	36%	110	38%	73	25%	289
2006	93	38%	96	39%	51	21%	247
2007	93	43%	78	36%	39	18%	218
2008	87	41%	83	39%	38	18%	213
2009	71	35%	86	43%	44	22%	202
2010	79	37%	79	37%	50	23%	216
2011	61	28%	100	45%	47	21%	220
2012	70	35%	53	27%	64	32%	199
2013	67	31%	68	32%	73	34%	214

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Boston HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	N
2004	172	64%	12	4%	85	32%	269
2005	187	65%	19	7%	83	29%	289
2006	152	62%	11	4%	84	34%	247
2007	143	66%	9	4%	66	30%	218
2008	140	66%	11	5%	62	29%	213
2009	133	66%	14	7%	55	27%	202
2010	134	62%	8	4%	74	34%	216
2011	138	63%	9	4%	73	33%	220
2012	113	57%	12	6%	74	37%	199
2013	123	57%	9	4%	82	38%	214

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-eight percent of people living with HIV/AIDS in MA who were born in a US dependency were born in Puerto Rico, 2% were born in US minor outlying areas, <1% were born in the US Virgin Islands, and <1% were born in Guam.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

**Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Boston HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2004	120	45%	28	10%	-- <sup>5</sup>	-- <sup>5</sup>	29	11%	-- <sup>5</sup>	-- <sup>5</sup>	36	13%	46	17%	<b>269</b>
2005	150	52%	21	7%	-- <sup>5</sup>	-- <sup>5</sup>	30	10%	-- <sup>5</sup>	-- <sup>5</sup>	28	10%	49	17%	<b>289</b>
2006	121	49%	17	7%	-- <sup>5</sup>	-- <sup>5</sup>	32	13%	-- <sup>5</sup>	-- <sup>5</sup>	26	11%	38	15%	<b>247</b>
2007	113	52%	23	11%	-- <sup>5</sup>	-- <sup>5</sup>	15	7%	-- <sup>5</sup>	-- <sup>5</sup>	15	7%	42	19%	<b>218</b>
2008	105	49%	11	5%	-- <sup>5</sup>	-- <sup>5</sup>	22	10%	-- <sup>5</sup>	-- <sup>5</sup>	15	7%	46	22%	<b>213</b>
2009	99	49%	11	5%	-- <sup>5</sup>	-- <sup>5</sup>	23	11%	-- <sup>5</sup>	-- <sup>5</sup>	20	10%	45	22%	<b>202</b>
2010	107	50%	16	7%	-- <sup>5</sup>	-- <sup>5</sup>	21	10%	-- <sup>5</sup>	-- <sup>5</sup>	32	15%	34	16%	<b>216</b>
2011	103	47%	14	6%	-- <sup>5</sup>	-- <sup>5</sup>	28	13%	-- <sup>5</sup>	-- <sup>5</sup>	21	10%	44	20%	<b>220</b>
2012	112	56%	12	6%	-- <sup>5</sup>	-- <sup>5</sup>	17	9%	-- <sup>5</sup>	-- <sup>5</sup>	13	7%	35	18%	<b>199</b>
2013	107	50%	10	5%	-- <sup>5</sup>	-- <sup>5</sup>	9	4%	-- <sup>5</sup>	-- <sup>5</sup>	34	16%	52	24%	<b>214</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15



**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Boston HSR, Massachusetts<sup>1</sup>, 2004–2013<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2004	85	269	32%
2005	92	289	32%
2006	85	247	34%
2007	68	218	31%
2008	57	213	27%
2009	53	202	26%
2010	57	216	26%
2011	65	220	30%
2012	53	199	27%
2013	56	214	26%

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.  
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Boston HSR, Massachusetts,<sup>1</sup> 2011–2013<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	136	503	27%
Female	38	130	29%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	44	198	22%
Black (non-Hispanic)	77	221	35%
Hispanic/Latino	45	184	24%
Asian/Pacific Islander	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
Other/Undetermined <sup>3</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	83	374	22%
Puerto Rico/US Dependencies <sup>4</sup>	8	30	27%
Non-US	83	229	36%
<b>Total</b>	<b>174</b>	<b>633</b>	<b>27%</b>

<sup>1</sup> Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>4</sup> Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15